Curing of mice by K-48 in low doses after chemical and irradiation influence promoted regeneration of bone marrow cellularity (karyocyte), restoration of mass of body, spleen, hemopoiesis (leukocytes and granulocytes) and immunity, and makes terms of their restoration lesser.
The anti-tumor drugs Decocine and Decovine also possess expressed radiosensitizing properties, exceeding the same action of 5-fluorouracil, that is reasoned their ability both to influence on DNA synthesis and synchronize cells in $M+G_2$ phase.
At present, clinical trials of Decocine are in process. It is revealed that it possesses ability to cure skin cancer; at it, negative affects on hemopoiesis and immunity has not been observed.
Among available synthesized compounds some new anti-tumor, immune-modulating, anti-inflammatory, anti-cirrhotic compounds are selected.

1038 POSTER

Correlation between frequency of BRAF V600E (T1796A) gene mutation and appearance of papillary thyroid carcinoma in a sample of Croatian population

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Papillary thyroid carcinoma (PTC) is the most common malignant tumor of the thyroid gland. There is several oncogenes as BRAF, RET/PTC, RAS, TRK which are involved in cancerogenesis of thyroid cells, but recently, BRAF oncogene, a serine-threonine kinase involved in the phosphorylation of MAPK signaling pathway responsible for cellular proliferation, has become a subject of great importance and interests. The BRAF gene mutations are found in 30−70% of all variants of PTC but there is no any data obout correlation between frequency of BRAF V600E (T1796A) mutation located in the exon 15 of BRAF gene (resulting in the substention of valine to glutamate at codone 600), with appearrance of PTC in a sample of Croatian examinees. We enrolled two group of patients: 59 subjects with PTC (mean age 39.6±3, range 28−56 years) and 68 healthy control subjects (mean age 40.2±2, range 25−55 years) without any history of malignancy in which the clinical evaluation including ultrasound of the neck and thyroid gland did not reveal any thyroid and neck pathology. Genomic DNA was isolated from peripheral venous blood while analysis of BRAF V600E (T1796A) gene mutation was performed using PCR-RLFP methode. The V600E (T1796A) gene mutation was detected in 21 samples in subjects with PTC (36.0%) compared to healthy group in which is mutation detected in 2 samples (2.9%). The difference was statisticaly significant ($p < 0.0001$). Our results indicate that the V600E (T1796A) mutation of the BRAF gene is genetic alteration with high frequency found in PTC amoung Croatian examinees and it could be used as a reliable genetic and preoperative marker but further investigation are needed to confirm these results.

1039 POSTER

Immunohistochemical staining of mammaglobin in breast cancer

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Background: Breast tumours are heterogeneous and new tumour markers are sought to improve patient diagnosis and prognosis. Mammaglobin A appears to be a suitable marker, as it is breast-specific and elevated in up to 80% of breast tumours. This study aims to examine the relationship between mammaglobin A expression in breast cancer specimens with pathological grades/markers.
Materials and Methods: 100 breast tumour specimens were analysed by immunohistochemistry for mammaglobin A expression. Stained sections were screened under the microscope with sections regarded as positive when >10% of lesional cells stained positive. For comparison purposes histological grade, tumour type, tumour size, ER, PR, Her-2 status and the presence/absence of nodal metastasis were recorded. Controls of benign breast conditions were also included.
Results: Mammaglobin was found to be absent in benign conditions and elevated in both invasive and in situ carcinoma. There was a positive correlation between ER positive status and mammaglobin A expression (57% correlation, $p < 0.05$, Chi Squared). There was also a positive correlation between lower tumour grades 1 and 2 (62 and 55% respectively) and mammaglobin A expression, whilst a negative correlation with grade 3 tumours, with mammaglobin protein expression decreasing as tumour grade increased. No correlation was found between presence/absence of nodal metastases, PR status, Her-2 status or tumour size.
Conclusions: Since positive ER status and lower tumour grade are associated with a better prognosis for breast cancer patients, then mammaglobin A protein expression may also be associated with a better prognosis. However, long-term follow-up is required to determine this.

1040 POSTER

KDR/Flk-1 expression in the tumor tissue vascular endothelial cells in two groups of breast cancer patients

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Background: Vascular endothelial growth factor (VEGF) is an endothelial cell specific mitogen which plays a role in pathogenic vascularity associated with carcinogenesis. Tumor cells and primary tumor tissues are known to express high levels of VEGF receptors. We try to evaluate VEGF receptor KDR (human homolog of Flk-1) or VEGFR2 expression in vascular endothelial cells of tumor tissue of the patients with sporadic breast cancer (BC) and pregnancy associated BC (PABC) of comparative age to suggest a bases of progression and dramatic tumor growth in PABC patients.
Material and Methods: Paraffin embedded tumor tissue sections from 12 sporadic BC patients and 12 PABC ones (250 and 300 vascular sections per each group in sum) were studied using image analyze by MatLab 7.0 algorithm. Representative images were confirmed by histopatological study. Immunohistochemical staining of tumor sections was made using pre-diluted antybodies for KDR/Flk-1, VEGF-A and DAP (Dako). KDR expression in fresh tumor tissues from three BC and three PABC patients was estimated also by RT PCR using primers for KDR encoding region (chr.4q11-q12) in comparison with GAPDH gene expression.
Results: Images obtained by Nicon digital microscope were studied for quantifying of VEGFR2 (KDR) expression revealed by immunohisto-chemistry. Preliminary automated image analysis of the receptor core number (density) in vascular endothelium sections of tumor tissue with comparative histological subtype and grade was revealed a significant difference in expression level between BC and PABC tumor tissues with receptor cores number 1.78±0.62 and 0.36±0.20 per vascular endothelium length unit in BC and PABC patients, respectively ($p < 0.002$). Over expression of KDR in PABC tumor tissues in comparison to BC ones was confirmed by RT PCR Automatic extraction of DAB-positive cores along vascular endothelium scatter plots showed more homogenous expression pattern in PABC tumors than in sporadic BC ones.
Conclusion: The data obtained suggest that VEGFR2 (KDR) expression in breast tumor vascular endothelium from PABC patients is higher than in sporadic BC tissues and it indicates on more intensive growth of the tumors and pathological evaluation of BC. Much higher VEGFR2 density and vascularity in PABC tumor tissue may induce activation of specific signal pathways, dramatic tumor progression and further angiogenesis in pregnancy – associated BC patients.

1041 POSTER

Use of tumor markers in a medicine department- a baseline and a post interventional study

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Background: Tumour markers (TM) are potentially useful in clinical practice, but seem to have a limited role in terms of diagnostic because of their poor sensitivity and specificity. Several guidelines exist on the appropriate use of TM, however they are frequently overused. The aim of the present study was to assess the impact of informative and audit activities about the correct use of TM on the use of TM in an internal medicine department in a baseline and in a post interventional evaluation.
Materials and Methods: A baseline study was conducted in an internal medicine department, with all patients to whom TM were requested, over a three month period. Clinical data were extracted from clinical files. The appropriate or inappropriate requests were determined according international guidelines. Results of this study were presented to the clinical staff and informative actions were performed. A post-interventional study was done, using the same methodology as the baseline study.
Results: At baseline TM were requested in 19.6% of patients from the evaluated period. After the intervention this figure dropped 42.6% to 10.2%. In the baseline study the main reason for TM request was diagnosis while in the post-interventional study it screening. In both studies the majority of appropriate requests were done for screening. In both studies most of inappropriate requests were done for diagnosis. In the baseline study 17, 5% of the requests were considered appropriate and there were an increase of appropriateness (TM appropriated in the post-interventional